STM-1 to STM-64 SDH/SONET Framer

with Data Multiplexing from a Series of Configurable I/O Ports

Abstract

The present invention relates to a device for combining at least two data signals having an input data rate into a single data stream having an output data rate being higher than the input data rate for transmission on a shared medium or vice versa, particularly, to a single SDH/SONET framer capable of handling a large range of SDH/SONET frames from STM-i to STM-j with an aggregated total capacity corresponding to an STM-j frame where i and j are integers in the range from 1 to 64 or higher according to the STM-N definition of the SDH/SONET standards. More over, the present invention can also be extended to work with STS-1 as lowest range. STS-1 exists in SONET only not SDH and corresponds to a data rate of 51.5 Mb/s a third of the 156 Mb/s of STM-1. The device according to the present invention comprises at least two ports for receiving and/or sending said at least two data signals, a port scanning unit for extracting data from the data signals received by said ports and/or synthesizing data to be transmitted via the ports, respectively, whereby said port scanning unit is configured to extract data from ports providing data streams having at least two different input data rates and/or to synthesize data to be transmitted via the ports taking data streams having at least two different data rates.